### PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file F18726 ASMd	reference	FOR FURTHER	CTION	See Form PCT/IPEA/416	
International application I PCT/IB2005/000125		International filing date	(day/month/year)	Priority date (day/month/year) 30.01.2004	
Authority under A  2. This REPORT co  3. This report is also a. Sent to the Sheet and/o Admir	STMENTS NO.  international prel Article 35 and tran consists of a total of consists of consists of consists of consists of consists of co	191 (PROPRIETA) iminary examination resmitted to the applicant of the applicant of the international Burning rectifications authorons). e earlier sheets, but you the international applicant on the international applicant on the international applicant on the international applicant of the international applic	eport, established by nt according to Artic this cover sheet. ing: eau) a total of 4 sheet higs which have been ized by this Authority could be the plication as filed, as		
sequence	listing and/or tabl	es related thereto, in g (see Section 802 of	electronic form only,	as indicated in the Supplemental Box	
4. This report contains indications relating to the following items:					
☑ Box No. I	☐ Box No. I Basis of the report				
☐ Box No. II	Priority				
Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability				ive step and industrial applicability	
	Box No. IV Lack of unity of invention				
KZ DOX 140, V	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
☐ Box No. VI					
☐ Box No. VII	☐ Box No. VII Certain defects in the international application				
☐ Box No. VIII	☐ Box No. VIII Certain observations on the international application				
Date of submission of the demand			Date of completion o	f this report	
26.08.2005			04.05.2006		
Name and mailing address of the international proliminary examining authority:			Authorized officer	ps Pafen.	
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# INTERNATIONAL PRELIMINARY REPORT

International application No. PCT/IB2005/000125

BOXNO. I B	asis of the report
□ a translatio	the language, this report is based on ational application in the language in which it was filed on the international application into, which is the language in furnished for the purposes of:
☐ publicati	ional search (under Rules 12.3(a) and 23.1(b)) ion of the international application (under Rule 12.4(a)) onal preliminary examination (under Rules 55.2(a) and/or 55.5; a)
have been furnis report as "origina	shed to the receiving Office in response to an invitation under Article 14 are referred to in this
Description, Pages	s de la companya de Se después de la companya de la comp
2-6, 8-12	
1, 7	as originally filed
me van 11	received on 29.08.2005 with letter of 26.08.2005
Claims, Numbers	
6-12	as originally filed
1-5, 13-15	received on 29.08 2005 with the
	received on 29.08.2005 with letter of 26.08.2005
☐ a sequence list	ing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. The amendmen	its have resulted in the cancellation of:
☐ the description	on hears
L inecialms. N	los ·
☐ the sequence	A linting of the second
any table(s) re	elated to sequence listing (specify):
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had not been made, s Supplemental Box (Ru	een established as if (some of) the amendments annexed to this report and listed below alle 70.2(c)).
☐ the claims, Nos ☐ the drawings, s ☐ the sequence ii	sheets/figs
* TF item 4	ated to sequence listing (specify);
ii icem 4 appl	ies, some or all of these sheets may be marked "superseded."
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#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/IB2005/000125

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

3,6,13

No: Claims

1,2,4,5,7-12,14,15

Inventive step (IS)

Yes: Claims

No: Claims

3,6,13

Industrial applicability (IA)

Yes: Claims

1-15

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

## Re Item I

Basis of the report

The amendments submitted by the applicant with letter from 26.08.2005 fulfil the requirements of Article 34(2)(b) PCT.

#### Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1. Reference is made to the following documents:
  - D1: US-A-6 046 269 (NASS ET AL) 4 April 2000
  - D2: US-A-5 846 315 (JOHANSEN, JR. ET AL) 8 December 1998
  - D3: US-B1-6 547 873 (RAMIREZ DE ARELLANO EDUARDO) 15 April 2003
  - D4: PATENT ABSTRACTS OF JAPAN vol. 018, no. 198 (C-1187), 7 April 1994 & JP 06 001647 A (SHIMIZU CORP), 11 January 1994
  - D5: WO 98/02486 A (RHONE-POULENC CHIMIE) 22 January 1998
- 2. After careful consideration of the argumentation of the applicant with letter from 26.08.2005, the present application still does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 4, 5, 7 to 12, 14 and 15 is not novel in the sense of Article 33(2) PCT.
- 2.1. The document D1 discloses (the references in parentheses applying to this document):

A coloured finishing composition comprising an aqueous pre-mix of an acrylic polymer latex, 5 to 15 % thickening agent and fillers, which are to be mixed into a cementitious dry mix (column 2; lines 23 to 40), whereby the final compositions comprises 28 to 50 % cement (column 6; lines 16 to 18). The thickening agent is disclosed to be a hydroxy ethyl cellulose (column 5; lines 33 to 36), which falls into

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the definition of a colloidal polymeric material.

With his letter from 26.08.2005 the applicant pointed out, that with a "proper reading of claim 1", the subject-matter of claim 1 could not be considered to be anticipated by D1. However, in the strict context of novelty, claim 1 defines a product which comprises at least the three components being water, cement and a colloidally-sized polymeric material, the product being suitable for application as a paint (see therefore also PCT-Guidelines 5.21). Claim 1 does not contain features (for example: presence, absence and/or amounts of specified components, amount of water, consistency in terms of viscosity) which enable a clear differentiation of the subject-matter of claim 1 in view of the disclosure of D1. The same argumentation applies mutatis mutandis for the disclosure of D2 and D3 (see point 2.2 below).

Thus, independent claim 1 can not be considered to be novel in light of D1. The sequence of mixing falls furthermore also into the scope of independent method claim 14, which is therefore also not novel.

The composition, which may also comprise colorants and biocides (column 6, lines 4 to 12) falls furthermore also into the scope of dependent claims 2, 4, 8 to 12 and 15, which can not be considered to be novel as well.

- 2.2. Documents D2 and D3 both disclose cementitious coating compositions comprising a organic binder component as well as cellulose ether in amounts falling into the scope of independent claim 1, which is therefore also not novel in view of D2 or D3.
  - D2 and D3 both disclose the addition of white Portland cement. Dependent claim 5 is therefore also not novel. D2 explicitly disclose sodium carboxymethyl cellulose as a suitable thickening component (column 3; lines 53 to 63). Thus, claim 7 is not novel as well.
- 3. Dependent claims 3, 6 and 13 do not contain any features which, in combination with the features of any claim to which they refers, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

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- It is known to the person skilled in the art that the feature use of fibrous colloid polymeric material for adjustment of viscosity (see D4 or D5) is equivalent to the use of cellulose ether of document D1 and can be interchanged with that feature where circumstances make it desirable. Dependent claim 6 can therefore not be considered to be inventive.
- The features of dependent claims 3 and 13 appear to be merely straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.

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#### CEMENT PAINT

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THIS INVENTION relates, broadly, to a cement paint. More particularly, it relates to a water-based cement paint; and it relates to a process for formulating the water-based cement paint.

According to the invention there is provided a water-based cement paint, the paint being a paint which includes, as constituents thereof, cement particles and water, the cement particles being uncured cement particles, the paint also including, as a constituent, colloidally-sized particles of polymeric material capable of forming a stable colloid in water, the paint being in the form of a homogeneous blend of said constituents, the cement particles forming 5 - 40% by mass of the paint and the colloidally-sized particles forming 0.25 – 10% by mass of the paint.

It is a feature of the paint of the present invention that the paint can be formulated as a stable blend of its constituents, in that the blend has an extended shelf-life in the absence of air. By stable is meant not only that the blend has said extended shelf-life in line absence of air, but also that it has little or no tendency, when sealed in a paint can, to separate quickly into its constituent parts, and after mixing by stirring in a paint can prior to use, will not require further mixing for at least 60 minutes. By an extended shelf-life is meant that the paint, in the absence of air (for example when contained in a sealed paint can), will be usable for several months

AMENDED SHEET

defoamer used is admixed with the water or colloidal suspension prior to the cement, and any pigment, thickener and/or dispersant used is admixed with the other constituents, after addition of the elastomer to the colloidal suspension. In particular, the pigment, thickenor and/or dispersant may be dispersed (dissolved and/or may be dispersed and/or may be dispersed (dissolved and/or may be dispersed and/or may be di suspended) in water bufore addition thereof to the blend of the other constituents.

The invention accordingly extends to a process for formulating a waterbased cement paint as defined above, the process including the steps of:

suspending the colloidally-sized polymer particles in water to form a colloidal suspension; and

admixing the coment particles with the colloidal suspension to form a paint which is a blend of the water, cement and colloidally-sized polymer particles.

The process may include the step of admixing the elastomer particles with the water to form the colluidal suspension, before the admixing of the cement particles with the suspension.

The various other said optional constituents may be admixed with the water, polymer particles, cement particles and elastomer particles in any desired or 20 convenient sequence.

The invention will now be described, by way of non-limiting illustrative example, with reference to the following worked Examples:

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## CLAIMS:

1. A water-based cement paint which includes, as constituents thereof, cement particles and water, the paint being

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5 characterized in that

it is a paint in which the cement particles are uncured cement particles, the paint also including, as a constituent, colloidally-sized particles of polymeric material capable of forming a stable colloid in water, the paint being in the form of a homogeneous blend of said constituents, the cement particles forming 5 - 40% by mass of the paint and the colloidally-sized particles forming 0.25 – 10% by mass of the paint.

- 2. A paint as claimed in Claim 1, characterized in that the cement particles are
- mass of the paint and the colloidally-sized particles forming 1 6% by mass of the

run-of-the-mill portland cement particles, the cement particles forming 10 - 30% by

- 15 paint.
  - 3. A paint as claimed in Claim 2, characterized in that the cement particles form 12 18% by mass of the paint, the colloidally-sized particles forming 1.5 3% by mass of the paint.

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- 4. A paint as claimed in any one of Claims 1 3 inclusive, characterized in that the cement particles are grey portland cement particles.
- 5. A paint as claimed in any one of Claims 1 3 inclusive, characterized in that the cement particles are white portland cement particles.

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- 13. A paint as claimed in Claim 12, characterized in that the pigment is a particulate inorganic pigment, the pigment forming 2 10% by mass of the paint and having an average particle size in the range 0.05 100µm.
- 5 14. A process for formulating a water-based cement paint as claimed in any one of the preceding claims, the process being

characterized in that

it includes the steps of:

suspending the colloidally-sized polymer particles in water to form a colloidal suspension; and

admixing the cement particles with the colloidal suspension to form a paint which is a blend of the water, cement and colloidally-sized polymer particles.

15. A process as claimed in Claim 14, characterized in that it includes the step of admixing the elastomer particles with the water to form the colloidal suspension, before the admixing of the cement particles with the suspension.